



**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2020-0881; Project Identifier 2018-CE-024-AD; Amendment 39-21578; AD 2021-11-16]**

**RIN 2120-AA64**

**Airworthiness Directives; Piper Aircraft, Inc. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is superseding Airworthiness Directive (AD) 79-01-03, which applied to certain Piper Aircraft, Inc. (Piper) Model PA-36-285 airplanes, and AD 83-20-03, which applied to Piper Models PA-36-285, PA-36-300, and PA-36-375 airplanes. AD 79-01-03 required repetitive inspections of the spar carry through assembly until replaced with a different part numbered spar carry through assembly. AD 83-20-03 established life limits for the wing spar structural components. This AD retains the requirements in AD 79-01-03 and AD 83-20-03 and requires the spar carry through assembly inspection from AD 79-01-03 for additional airplanes and adds life limits for certain wing structural components previously omitted from AD 83-20-03 for certain serial numbered airplanes. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, FL 32960; phone: (772) 567-4361; website: <https://www.piper.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0881.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0881; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Dan McCully, Aviation Safety Engineer, FAA, Atlanta ACO Branch, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5548; fax: (404) 474-5606; email: [william.mccully@faa.gov](mailto:william.mccully@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 79-01-03, Amendment 39-3383 (44 FR 36, January 2, 1979), Docket No. 78-EA-69 (AD 79-01-03) and AD 83-20-03, Amendment 39-4739 (48 FR 45535, October 6, 1983), Docket No. 83-CE-23-AD (AD 83-20-03). AD 79-01-03 applied to certain Piper Model PA-36-285 airplanes and required repetitive inspections of spar carry through assembly part number (P/N) 97370-00, with repair as necessary, until the spar carry through assembly is replaced with P/N 76824-02. AD 83-20-03 applied to Piper Models PA-36-285, PA-36-300, and PA-36-375 airplanes and established life limits for certain wing structural components.

The NPRM published in the *Federal Register* on March 23, 2021 (86 FR 15439). The NPRM was prompted by inconsistencies between the two ADs and the airplanes' type certificate. The FAA determined that the life limits for the spar carry through assembly, P/N 97370-00 or 76824-02, were inadvertently omitted from AD 83-20-03 for certain airplanes. In the NPRM, the FAA proposed to add the life limit for the spar carry through assembly for Models PA-36-285 and PA-36-300 airplanes, serial numbers 36-7660123 through 36-8160023; and Model PA-36-375 airplanes, serial numbers 36-7802001 through 36-8302025. The FAA also determined the repetitive inspections of the spar carry through assembly required by AD 79-01-03 should apply to both Model PA-36-285 and Model PA-36-300 airplanes until the life limit replacement of the spar carry through assembly with P/N 76824-02. In the NPRM, the FAA also proposed to require adding the repetitive inspections for the Model PA-36-300 airplanes. After the initial life limit replacement of the wing spar carry through assembly, P/N 97370-00 with P/N 76824-02, the repetitive inspections will no longer be required.

The FAA is issuing this AD to address the unsafe condition on these products.

### **Discussion of Final Airworthiness Directive**

#### **Comments**

The FAA received no comments on the NPRM or on the determination of the costs.

#### **Conclusion**

The FAA reviewed the relevant data and determined that air safety requires adoption of the AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

### **Related Service Information under 1 CFR Part 51**

The FAA reviewed Piper Service Bulletin No. 552A, dated August 3, 2018 (Piper SB No. 552A); Piper Aircraft PA-36, Pawnee Brave Kit 764-394, Right Wing Main Spar Caps Replacement, dated June 9, 2012 (Piper Kit 764-394); and Piper Aircraft PA-36, Pawnee Brave Kit 764-393, Left Wing Main Spar Caps Replacement, dated June 9, 2012 (Piper Kit 764-393). Piper SB No. 552A applies to Models PA-36-285 and PA-36-300 airplanes and contains procedures for repetitively inspecting wing spar carry through

assembly P/N 97370-00. Piper Kit 764-394 identifies the applicable parts and specifies procedures for replacing the right wing main spar caps, which includes the attachment bolts and wing carry through spar fittings and assembly. Piper Kit 764-393 identifies the applicable parts and specifies procedures for replacing the left wing main spar caps, which includes the attachment bolts and wing carry through spar fittings and assembly. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

#### **Other Related Service Information**

The FAA also reviewed Piper Aircraft Corporation Service Bulletin No. 552, dated February 3, 1978 (Piper SB No. 552). Piper SB No. 552 contains the same procedures as Piper SB No. 552A, but Piper SB No. 552 only applies to Model PA-36-285 airplanes.

## Costs of Compliance

The FAA estimates that this AD will affect 123 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection of P/N 97370-00 wing spar carry through assembly	8 work-hours X \$85 per hour = \$680	Not applicable	\$680	\$83,640
Replacement of the wing attachment upper bolt and lower bolt	10 work-hours X \$85 per hour = \$850	\$1,310 (both bolts)	\$2,160	\$265,680
* Replacement of wing carry through spar assembly	30 work-hours X \$85 per hour = \$2,550	\$23,467	\$26,017	\$3,200,091
**Replacement of Piper Kit 764-393 (Left) and Piper Kit 764-394 (Right)	20 work-hours X \$85 per hour = \$1,700	\$26,867 (both kits)	\$28,567	\$3,513,741

\* The wing carry through spar fitting, P/N 97713-03, is included in the wing carry through spar assembly, P/N 76824-02.

\*\* The replacement for the wing spar fitting P/N 97712-00 and the replacement for spar assembly P/Ns 97701-00 and 97701-01 are included in Piper Kit 764-393 and Piper Kit 764-394.

## Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA has determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive 79-01-03, Amendment 39-3383 (44 FR 36, January 2, 1979), Docket No. 78-EA-69; and Airworthiness Directive 83-20-03, Amendment 39-4739 (48 FR 45535, October 6, 1983), Docket No. 83-CE-23-AD; and

b. Adding the following new airworthiness directive:

**2021-11-16 Piper Aircraft, Inc.:** Amendment 39-21578; Docket No. FAA-2020-0881; Project Identifier 2018-CE-024-AD.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 79-01-03, Amendment 39-3383 (44 FR 36, January 2, 1979) (AD 79-01-03); and AD 83-20-03, Amendment 39-4739 (48 FR 45535, October 6, 1983) (AD 83-20-03).

#### **(c) Applicability**

This AD applies to Piper Aircraft, Inc. Models PA-36-285, PA-36-300, and PA-36-375 airplanes, certificated in any category.

#### **(d) Subject**

Joint Aircraft System Component (JASC) Code 5700, Wings.

**(e) Unsafe Condition**

This AD was prompted by a review of AD 83-20-03 and AD 79-01-03 and the determination that the requirements of those ADs did not address all of the affected airplanes. The FAA is issuing this AD to prevent fatigue damage to the wing structural components. The unsafe condition, if not addressed, could result in failure of the wing structure with consequent loss of control.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Inspection of the Wing Spar Carry Through Assembly**

(1) For Models PA-36-285 and PA-36-300 airplanes, serial numbers 36-7360001 through 36-7560003, with a wing spar carry through assembly part number (P/N) 97370-00 installed, before the airplane accumulates a total of 2,000 hours time-in-service (TIS) or within 25 hours TIS after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 100 hours TIS, inspect the wing spar carry through assembly by following the Instructions, section 1, of Piper Service Bulletin No. 552A, dated August 3, 2018, (Piper SB No. 552A).

(2) If any damage is found during any inspection required by paragraph (g)(1) of this AD, before further flight, repair or replace the wing spar carry through assembly by following the Instructions, section 2, of Piper SB No. 552A.

(3) Replacing wing spar carry through assembly P/N 97370-00 with wing spar carry through assembly P/N 76824-02 terminates the repetitive inspections required by paragraph (g)(1) of this AD.

**(h) Life Limit Replacement of Wing Structural Components**

Remove from service the wing structural components specified in paragraphs (h)(1) through (8) of this AD before the part accumulates the life limit hours TIS set forth in table 1 to paragraph (h) of this AD. If, on the effective date of this AD, the component will reach its life limit within 100 hours TIS or has already reached its life limit, remove the part from service within 100 hours TIS after the effective date of this AD.

Table 1 to paragraph (h)—*Compliance Times for Life Limit Replacement of Wing Components*



Airplanes	Type of Replacement	Paragraph of this AD					
		(h)(1) (h)(2) (h)(3)	(h)(4)	(h)(5)	(h)(6)	(h)(7)	(h)(8)
Models PA-36-285 and PA-36-300		Life Limit Hours Time-in-Service on the Component					
Serial Numbers (S/Ns) 36-7360001 through 36-7560003	Initial Repetitive	4,100	4,100	N/A	N/A	3,100	2,000
		4,100	4,100	N/A	N/A	4,100	2,000
S/Ns 36-7560004 through 36-7560055	Initial Repetitive	4,100	N/A	N/A	4,000	3,100	2,000
		4,100	N/A	N/A	4,100	4,100	2,000
S/Ns 36-7560056 through 36-7660122	Initial Repetitive	4,100	N/A	4,100	4,000	N/A	2,000
		4,100	N/A	4,100	4,100	N/A	2,000
S/Ns 36-7660123 through 36-8160023	Initial Repetitive	4,100	4,100	4,100	N/A	N/A	2,000
		4,100	4,100	4,100	N/A	N/A	2,000
Model PA-36-375		Life Limit Hours Time-in-Service on the Component					
		(h)(1) (h)(2) (h)(3)	(h)(4)	(h)(5)	(h)(6)	(h)(7)	(h)(8)
S/Ns 36-7802001 through 36-8302025	Initial Repetitive	4,100	4,100	4,100	N/A	N/A	2,000
		4,100	4,100	4,100	N/A	N/A	2,000

(1) Remove from service wing attachment upper bolt P/N 77245-00 and replace with an unused (zero hours TIS) wing attachment upper bolt P/N 77245-00.

(2) Remove from service any wing carry through spar fitting P/Ns 97713-00, 97713-02, or 97713-03 and replace with an unused (zero hours TIS) wing carry through spar fitting P/N 97713-03.

Note 1 to paragraph (h)(2): Wing carry through spar fitting P/N 97713-03 is included as part of spar carry through assembly P/N 76824-02.

(3) Remove from service wing spar fitting P/N 97712-00 and replace with an unused (zero hours TIS) wing spar fitting P/N 97712-00 by following steps D(1)(a) through D(1)(c) or section D(2), in Piper Aircraft PA-36, Pawnee Brave Kit 764-393, Left Wing Main Spar Caps Replacement, dated June 9, 2012 (Piper Kit 764-393), or Piper Aircraft PA-36, Pawnee Brave Kit 764-394, Right Wing Main Spar Caps Replacement, dated June 9, 2012 (Piper Kit 764-394), as applicable.

Note 2 to paragraphs (h)(3): This note applies to paragraphs (h)(3) and (7) of this AD. Replacement parts for the left and right wing spar fittings P/N 97712-00 and the right, left, top, and bottom spar assemblies P/Ns 97701-00 and 97701-01 are included with Piper Kit 764-393 and Piper Kit 764-394.

(4) Remove from service spar carry through assembly P/N 97370-00 or 76824-02, as applicable, and replace with an unused (zero hours TIS) spar carry through assembly P/N 76824-02.

(5) Remove from service spar assembly P/Ns 97701-00 and 97701-01, Revision P or later revision, and replace with an unused (zero hours TIS) spar assembly by following the Instructions, sections B. and C., in Piper Kit 764-393 or Piper Kit 764-394, as applicable.

(6) Remove from service any spar carry through assembly P/N 76767-00 or P/N 76824-02 and replace with an unused (zero hours TIS) spar carry through assembly P/N 76824-02.

(7) Remove from service spar assemblies P/Ns 97701-00 and 97701-01, Revision N or earlier revision, and replace with an unused (zero hours TIS) left spar cap replacement kit P/N 764-393 and right spar cap replacement kit P/N 764-394 by following the Instructions, sections B. and C., in Piper Kit 764-393 or Piper Kit 764-394, as applicable.

(8) Remove from service wing attachment lower bolt P/N 77245-00 and replace with an unused (zero hours TIS) P/N 77245-00 bolt.

**(i) Credit for Previous Actions**

You may take credit for the actions required by paragraph (g) of this AD if you performed those actions before the effective date of this AD using Piper Aircraft Corporation Service Bulletin No. 552, dated February 3, 1978.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Atlanta ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local

Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in Related Information.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) AMOCs approved for AD 79-01-03 and AD 83-20-03 are approved as AMOCs for the corresponding provisions of this AD.

**(k) Related Information**

For more information about this AD, contact Dan McCully, Aviation Safety Engineer, FAA, Atlanta ACO Branch, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5548; fax: (404) 474-5606; email: [william.mccully@faa.gov](mailto:william.mccully@faa.gov).

**(l) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Piper Service Bulletin No. 552A, dated August 3, 2018;

(ii) Piper Aircraft PA-36, Pawnee Brave Kit 764-394, Right Wing Main Spar Caps Replacement, dated June 9, 2012; and

Note 3 to paragraph (l)(2)(ii): The Kit List and Sketch A for Piper Aircraft PA-36, Pawnee Brave Kit 764-394, Right Wing Main Spar Caps Replacement, dated June 9, 2012; and Piper Aircraft PA-36, Pawnee Brave Kit 764-393, Left Wing Main Spar Caps Replacement, dated June 9, 2012, were revised and dated June 9, 2012. The instructions and sketches in the rest of the documents were reformatted but retain the previous date of March 30, 1982, because the content of those pages was unchanged.

(iii) Piper Aircraft PA-36, Pawnee Brave Kit 764-393, Left Wing Main Spar Caps Replacement, dated June 9, 2012.

(3) For service information identified in this AD, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, FL 32960; phone: (772) 567-4361; website: [www.piper.com](http://www.piper.com).

(4) You may view this service information at FAA, Policy and Innovation Division, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on May 19, 2021.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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